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THE VALUE OF THE OPHTHALMOSCOPE TO
THE GENERAL PRACTITIONER.

By B. JOY JEFFRIES, M.D., Boston.

Read before the Massachusetts Medical Society,
June 4th, 1872.

I TRUST time will prove I am correct in saying that before ten years shall have elapsed the professors of theory and practice in our best medical schools will teach the use of the ophthalmoscope as now they do the stethoscope. This, however, will not be so very rapid an advance, since a generation will then have passed by, from the time when Prof. Helmholtz so modestly placed before the medical and scientific world the invention of his genius. The value of this invention to the ophthalmic surgeon need not here be dwelt upon, since it is now, of course, universally recognized that his specialty could not be practised without its aid. I may say of it, as I have elsewhere of the life and labors of the late Prof. Graefe, namely, that it has done very much to turn a doubtful specialty into a certain science.

What I desire to here point out is the value of the ophthalmoscope in general practice, and I cannot, perhaps, do this better than by briefly speaking of the diseases in which it affords us an additional and valuable means of diagnosis, without entering into the detail of how and why it does this. It will not be necessary either, to enter into any discussion as to exactly how reliable the knowledge we obtain is, or rather how much may be deduced from the symptoms we can observe and group together, because the whole study is at present comparatively new and yet in its infancy. Certainly, a wide field for observation and thought is here rapidly opening before us, and busy workers are already in various parts of the world engaged in gene-

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ral ophthalmoscopy. As the optic nerve entrance and retina have so often been likened to a portion of the brain itself which the ophthalmoscope places directly under our eyes, I will commence with the cerebral affections in which this invention helps us out in our diagnosis. At present, the lungs and heart may as well be studied and their diseases treated without the use of the stethoscope, as affections of the brain and nervous system without the employment of the ophthalmoscope by the specialist in this department. I do not, therefore, as is seen, propose to give all the ophthalmoscopic signs or symptoms or discuss them, but simply point out how and when the eye mirror can help us and in what affections.

Epilepsy.—Here the ophthalmoscope is hardly needed for diagnosis. From recent observations of patients during the fit, it would seem, however, as if the mirror might some day trace out the cause of the malady.

Chorea.—Here, again, nothing was at first seen, till Dr. Hughlings Jackson discovered signs resembling embolism.

Mania and Dementia.—Ophthalmoscopic signs are frequent and numerous, and already so classified as to assist us in the diagnosis between organic and functional disease.

Tubercular Meningitis.—There is now conclusive testimony that the mirror will not only assist in deciding, but give us very definite knowledge of just those cases of meningitis where the general symptoms are inconclusive. This I mean entirely aside from the deposits of tubercle seen in the choroid by the ophthalmoscope.

Meningitis with Fevers, Pyæmia, &c.—Here the mirror signs are of great value for differential diagnosis, and the study of the amauroses accompanying or following blood-poisoning and the exanthemata has already furnished us with some definite results.

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Syphilitic, Rheumatic, Alcoholic and Traumatic Meningitis do not so often afford us mirror signs. In the first, however, we have so much specific interference with nerve and retina as to point to the latent cause.

Hydrocephalus affords us marked optic nerve changes, even when the child perhaps may only be regarded as stupid or slow in learning.

Tumors within the Cranium.—I mean enlargements, thickenings or growths occupying the space within the cranial walls. It was long ago noticed that these caused peculiar changes in the optic nerve and the retinal vessels. These changes have been and still are the subject of close and careful observation for practitioners who have used the ophthalmoscope in the study of mental or cerebral diseases. But even they, as well as others, are, so to speak, in the collective and recording period. This will be readily understood when we remember that it rarely occurs for a patient with cerebral tumor to remain very long under one physician's care, even if an expert with the eye mirror. Post mortems are also rare in these cases, so that but few medical men have frequently examined a case with the ophthalmoscope during life, noted the changes, and found after death exactly to what alterations in the brain these were due. Hence the value of every observation being truthfully recorded, however slight the symptoms may have seemed. These collected records will by-and-by lead to truth and discovery. If, now, I am directly asked, "Can the ophthalmoscope tell us anything about tumors in the brain," I should reply, it certainly can, but do not suppose it will entirely supplement careful and diligent study of all other symptoms and good common sense reasoning. The stethoscope does not tell us so much, as it gives us a greater variety of data to argue from, a larger field of symptoms. Remember how long it has been before the microscope regained its proper position in medicine, lost because it could not answer of itself with truth and authority whether our patient was to die of cancer or tubercle, in the hands of those who rather expected to see the diagnosis and prognosis written out on the slide at the side of the specimen.

General Paralysis.—Various observers are agreed that decided and definite ophthalmoscopic changes are visible in the optic disks of a kind we see where what is called *white atrophy* is going on.

Spinal Affections.—Here, again, we have the eye mirror assisting us in diagnosis,

and, to an extent, perhaps, even locating the seat of injury or disease.

Bright's Disease.—The profession now pretty generally know that inflammation of the retina occurs in this disease of the kidneys, accompanied by more or less loss of sight. Will the ophthalmoscope help us any in diagnosis? Other appliances and methods of test will undoubtedly tell us our patient has Bright's disease, but the mirror alone will prove to us that the failure of sight is due to this affection. Not unfrequently, however, the ophthalmic surgeon sends to the general practitioner a patient with this disease, who applied solely on account of failing vision, that being to him his first symptom. The retinal changes are so marked as to be very readily seen and recognized as such.

Leukæmia presents very peculiar and interesting changes in the fundus oculi, the study of which seems to be opening to us some new and more correct views of the disease itself.

Syphilis.—Well as syphilis is known to affect the anterior portion of the eye in the form of iritis, even specialists in the department have remained unfamiliar with the changes in the optic nerve and retina, visible to the ophthalmoscope, some of which afford us very strong points of both diagnosis and treatment.

Diabetes.—It may occur that retinal trouble will induce a person to first apply to the specialist, when examination of the urine shows the presence of sugar, and the diabetic patient is sent to his own family physician for care and treatment. I mean that retinitis may be a marked symptom to the mirror, before the patient's attention is called to the quantity or quality of his urine.

Poisoning from Alcohol.—Loss of visual power is well known and recognized in habitual drunkards. Amblyopia *ex abusu* is one of the ophthalmic surgeon's headings. The mirror shows us the cause and warns us as to diagnosis.

Poisoning from Tobacco.—Several good observers and careful and truthful recorders have seen ophthalmoscopic changes in the optic nerve which are gradually being recognized as directly caused by the use of tobacco.

Poisoning from Lead.—The eye suffers in several ways from lead poisoning. Inflammation and subsequent atrophy of the optic nerve are directly seen by the mirror to confirm our diagnosis and shape our prognosis in this insidious and dangerous malady.

Menstruation directly affects the visual power, which the mirror shows to be due to visible changes in the nerve and its blood-vessels.

Diseases of the Heart and Bloodvessels.—Here every day is proving to us that the ophthalmoscope is of great value in diagnosing or locating grave lesions of circulation, aortic aneurisms, for instance. In the retinal circulation we have veins and arteries side by side with the heart's impress, so to speak, on both systems of bloodvessels.

I have purposely confined this list to those general or local affections in which the mirror can be of real assistance to us in diagnosis, as reports from various observers the last few years have amply proved. To discuss precisely how it assists us is not, as I said, a part of my paper. The recent monographs on this subject reach several hundred pages, open to all for study, and the reader's attention must have been frequently arrested in the medical journals lately by constant reports of ophthalmic signs and symptoms associated with very various diseases. It will thus be seen that the eye mirror is being gradually wrested from the ophthalmic surgeon as a special instrument for diagnosis, so that it cannot be long before it is at the side of the stethoscope on the table of the general practitioner. Specialists in mental diseases are now hard at work with it, conscious that without its aid a large and important group of symptoms are beyond their reach. The report of a cerebral affection without the ophthalmoscopic signs would be now regarded much as the report of nephritic trouble without the urine analysis.

But, now, aside from the nicer points in medical ophthalmoscopy, to be appreciated and used in diagnosis perhaps still a long time only by those familiar and expert with their presence and meaning, is the eye mirror of as direct practical value to the general practising doctor, as the microscope in determining vegetable parasites or urinary casts? I would reply, most certainly, and especially to all at work away from centres of population, where, till now, ophthalmic surgeons alone find enough remunerative work, and to whom a patient may be readily sent. Let me here give a few examples in proof of my assertion. A patient awakes in the morning, seeing only the half or a portion of an object. This is a natural cause of fright to him and to the physician called in, who endeavors hurriedly to recall the cerebral troubles in which half-vision occurs. At last, however, his wit is

baflled, and the terrified man or woman is sent, perhaps hundreds of miles by stage-coach, steamboat or cars, to some ophthalmic surgeon. A glance with the eye mirror shows him a partially detached retina, to become wholly so, very likely, by the necessary journey home. Surely, it would have been worth something to that village doctor, and still more to the patient, had the former been able to look into the globe and diagnosed what is as apparent as a torn or rumpled shirt-bosom, namely, separation of the retina.

Cataract.—I should be afraid, almost ashamed, to say how many times this has been the diagnosis brought me by a patient who had indelible opacities of the cornea, but whose crystalline lens was perfectly transparent. A declaration of inability to remove the *scum* by operative interference often giving rise to a doubt of my professional attainments, and not unfrequently to an expressed wish to be told of the locality of some other *institute*. A very few minutes devoted to learning the use of, and as many seconds' glance at such opacities and clear pupil with, the ophthalmoscope would have avoided a disagreeable exposure, not always to be kept from intelligent and shrewd American men and women.

Injuries of the Eye.—It does not require a very dexterous use of the ophthalmoscope to detect a foreign body like a piece of metal or stone in the crystalline lens, or within the globe, in vitreous or retina. Surety of such presence or absence is certainly invaluable to the doctor, and will well repay the time spent in learning something at least about the eye-mirror and its use.

Hæmorrhage, retinal or otherwise, of traumatic character, is, so to speak, a coarse object readily seen by the ophthalmoscope. To be able to tell the patient whom it has temporarily blinded that he will again see when it has become absorbed, cannot tend to hurt the practitioner in the eyes of his village clients, even if they persist in attributing the restored vision to the placebo given.

When once you have learned to see and recognize the healthy optic nerve entrance into the eyeball, through the eye mirror, you cannot fail to diagnose complete white atrophy causing total amaurosis, and need not send the patient miles from home to learn from quasi-oracular lips that they are and will remain blind.

Retinitis Pigmentosa.—As you are probably well aware, there is a form of disease causing gradual blindness culminating in

total loss of vision at about 45 years of age, the essential element of which is a peculiar stellate deposit of pigment in the retina in shape like bone corpuscles. Once seen it will ever after be recognized, or perhaps equally well from having seen an ophthalmoscopic picture of the interior of the globe. Why should not the village doctor see this deposit and tell the patient of his impending blindness? When he knows that blood relatives have married he may even look for it in their offspring, since some 25 per cent. of persons with retinitis pigmentosa are found to have parents who were blood relatives, as first cousins, &c.

Railway or other Injuries.—When these affect the eye, and the case, as often happens, comes into court on the question of damages, an ophthalmoscopic examination may readily decide whether the patient can see or not. An ophthalmic surgeon is not always to be obtained just when wanted. Any surgeon after a few weeks' work with the ophthalmoscope might easily recognize gross appearances in the fundus oculi, enabling him to give a positive opinion that the plaintiff was blind, and explain why.

Glaucoma.—I saw, many years ago, one of the best ophthalmic surgeons in Europe mistake cataract for this disease. The reverse too often happens, for the reason that the pupil in glaucoma has a yellowish-green look, like some stages of cataract. Now a single glance with the ophthalmoscope will prove to us by the red reflection from the bottom of the eye that the lens is comparatively transparent and there is no cataract, even if the hardened globe, dilated pupil, and usual great pain, has not already suggested glaucoma. The necessary immediate operative interference of iridectomy and its success in restoring vision need not here be dwelt upon. I would simply call attention to the fact that very little knowledge of the use of the ophthalmoscope may save the practitioner, if he cannot himself perform iridectomy, the mortification of not having called upon some one who could, at a time when success would have been insured. Glaucoma causes cataract finally, which iridectomy in season would have prevented.

Dislocation of the Crystalline Lens.—This not infrequent accident from injury, even when very slight, as from sneezing, naturally produces great disturbance of the refraction of the eye. The displacement of the lens is most simply and readily seen and explained by the ophthalmoscope. A patient may thus be saved being sent, perhaps a great distance, to an ophthalmic surgeon who can say no more than the

doctor at home could have, if he had troubled himself to become but a little posted in the use of the ophthalmoscope.

I have thus briefly shown you the value of the ophthalmoscope as a means of diagnosis to the general practitioner. And this in two ways: first, as an additional means in some of the most difficult cases we have to deal with, viz., affections of the brain and cord. You must have noticed that for the past few years there have been frequent articles in the medical journals from the pens of specialists now at work with the ophthalmoscope in diseases of the nervous system. As an ophthalmic surgeon, I welcome their labors as relieving us of a duty hitherto thrown upon our hands, but which we were naturally not in the true position to discharge to our own or the patient's advantage. For instance, some one is sent to me with trouble of the visual powers, with a request from the physician that I should determine what affection the ophthalmoscope will point out. I regret to state that as a general thing this is unsatisfactory, because I see the patient but once or twice, when I may detect *nothing positive*, and so report. Were they, however, constantly under observation, then the eye mirror would give very valuable hints for diagnosis and prognosis. It is not, however, an ophthalmic case; perhaps it is a supposed tumor of the brain. Here, then, most certainly, the general practitioner should be able to use the ophthalmoscope and diagnose from what he sees. The time is rapidly coming when at least those who pretend to treat nervous troubles must be thorough ophthalmoscopists, or as is just, take rank and place behind those who have mastered the eye mirror and become familiar with its revelations.

Secondly, I have brought to your notice but a few of the many instances where but a slight acquaintance with the use of the ophthalmoscope will be of infinite service to the busy doctor out of reach of the centres of population where special surgeons settle. You will all agree, I think, that it pays to have a microscope and use it for diagnosis. A little familiarity with the ophthalmoscope will soon convince you that it pays to have this instrument and be able to employ it to help out your diagnosis, or perhaps settle your case at once. Every one near you affords material for the observation of the healthy optic nerve and retina, and ample material and opportunities exist at all the eye infirmaries for the familiarizing yourselves with morbid appearances. You need not be a specialist

to use with great satisfaction and profit the eye mirror, any more than to employ the laryngoscope, the endoscope, or the sphygmograph. Perhaps we all do not realize that the laity are learning the use of the ophthalmoscope simply as a scientific instrument. If you will visit the physical laboratory of the Institute of Technology in this city, you will see there a large hall filled with students at work at separate tables, each solving practically some physical problem with the instruments in his own hands. At one table you will find the ophthalmoscope, and the student's problem is to learn its theory and use, and finally draw a picture of what he observes through the instrument in the model of a human eye, the interior of which he can see in no other way than by means of the eye mirror he has before him. Now that student may hereafter be the engineer employed to survey and lay out a railroad through your town or village. Would it not be a little mortifying if he could look into the eye of your patient, one of his workmen, and tell you the piece of steel was still bedded in the globe, whilst you had promised the man his future sight because you judged the portion of metal had flown off from the eye and not penetrated it.

Finally, I would draw your attention to what may have escaped observation, namely, that the ophthalmoscope next to the microscope has done so much towards elevating and forwarding medical study and practice, by offering the means for and requiring better, closer and more truthful observation, more careful and more thoughtful deduction from such observation, and hence more intelligent and successful practice. We must all remember that the best distinction we can show the community between educated physicians and the hosts of quacks and pretenders is the wide gap between their ignorance and our striving for knowledge and truth. The wider and deeper we make this gap, the easier will it be for us to gain the confidence and retain the respect of our communities. The ophthalmoscope should be a powerful adjuvant in this.

Of the many books and various forms of instruments, as well as methods and means of study in ophthalmoscopy, I did not propose to speak, and therefore have said here nothing concerning them.

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CONGENITAL CYST OF THE NECK.

By W. C. B. FIFIELD, M.D., Dorchester.

In reading recently a thesis of M. Paul Boucher, entitled "*Etude sur les Kystes Congénitaux du Cou*," my recollection reverted to a case of congenital cyst of the neck occurring in my own practice and published many years ago in the JOURNAL.

The case did not receive much attention at the time, but it seems to be unique among the cases recorded, and as it overthrows the differential diagnosis of M. Boucher I shall ask a republication of it.

M. Boucher divides congenital cysts of the neck into two classes, simple and composite. Of the simple, he gives the following description: "Simple congenital cyst of the neck presents the appearance of a tumor variable in size and extent. In some cases it does not exceed the size of a pullet's egg, in others it occupies the whole lateral part of the neck, and sometimes encroaches on the cheek. It is invariably found on the left side of the neck. (Why on the left is unknown. Let us recall here the statement of Malgaigne that the left half of the body presents defects of conformation or fetal lesions more often than the right.) More prominent and better defined when it is small, it spreads itself out, and seems to have its boundaries less clearly marked when it is more voluminous. We can, however, assign as extreme limits—upwards, the border of the lower jaw; downwards, the clavicle; inwards, the median line; outwards, the sterno-mastoid muscle. It is composed of a single sac, but this may be incompletely partitioned by trabeculae which radiate from its posterior wall. The walls are very thin and fluctuation is distinctly perceptible. It is invariably situated on the anterior part of the neck, i. e. in front of the sterno-mastoid muscle. It does not appear to affect the health and well-being of the child, and is unaccompanied by any other malformation. Any interference by operations, undertaken for its removal or for obliteration of the sac, by stimulant injections, is fraught with the greatest danger to the life of the patient.

"Composite congenital cysts are distinguished from the simple, first, by their situation. Simple congenital cysts, always superficial, are never situated elsewhere than on the anterior lateral part of the neck. Composite cysts, on the contrary, lie deeply and show themselves both on the anterior and posterior part of the neck. Between these, also, a great difference exists. Pos-

terior cysts are commonly found upon infants born before term, and are accompanied by some defect of conformation, while those of the anterior part are found upon children born at full term, of good health, and without bodily deformity. Anterior cysts are often large, and most frequently occupy both the anterior (meaning by anterior the middle line from the chin to the sternum) and bi-lateral portions of the neck. Posterior cysts occupy by preference the median line, extending on each side of the vertebral column. In some cases, however, they proceed from one side of this line and reach even to the acromion. Not fairly fluctuating, composite congenital cysts present irregularities to the touch, being apparently solid in some parts and soft in others. They are irremediable by any operation. The diagnosis must lie between adult hydrocele of the neck, for the simple cyst; between ranula, cysts of various contents below the chin, congenital goitre, cystic goitre, and congenital cysts of the thyroid, for the anterior composite cysts, and between spina-bifida and encephalocele for the posterior composite cyst."

M. Boucher gives no record of either simple or composite cyst extending into the axilla.

Cæsar Hawkins, in his article on "A Peculiar Form of Congenital Tumor of the Neck," alluding, probably, to the composite cyst which so resembles ranula, says that he was at first inclined to believe that these cysts resulted from the obstruction of the conduits of the parotid and sub-maxillary glands, but he rejected this opinion when he saw a congenital tumor of many cysts occupying the axilla.

The case reported by me in 1860, entitled "Congenital Cyst," not only presents some points that invalidate M. Boucher's plan of diagnosis, but is unique in the extension of the cyst to the axilla. It is interesting to remark that, at the time of publication, a correct plan of treatment was given, that of expectancy, combined, if necessary, with capillary punctures; notwithstanding the success claimed at that time by M. Roux, of Toulon, for injections of iodine, but which are shown by M. Boucher to have been obtained only after repeated attempts, great suffering and most serious risk of life. Simple hydrocele of the neck in adults is another matter.

An ambrotype of the patient is still in my possession and is worthy of being photographed.

On the 7th of April, 1859, I was requested to see a new-born child in Braintree.

The child presented, in the *left posterior cervical* region known as the left posterior mastoid triangle, a tumor more than equaling the size of the two closed fists. It was tense, fluctuating, seemed entirely subcutaneous and overhung the shoulder of that side, rolling and swaying about with the motions imparted to the child. Within the axilla of the same side was another tumor of the same appearance as the first, but much smaller, evidently containing fluid. By pressure on the cervical tumor, the axillary tumor could be distended, while the first became flaccid, and *vice versa*. The liquid did not flow through any subcutaneous channel, but seemed to pass directly through the shoulder, in the space between the scapula and clavicle, by a narrow neck like that connecting the two globes of an hour-glass. My interest in the case was so much excited that I invited my friends Drs. J. B. S. Jackson and Calvin Ellis to see the child. They kindly consented, and came to Braintree. I understood Dr. Jackson to say that he had not met with a parallel case. The tumors were then much more flaccid than at birth. Day by day they decreased in size until they were scarcely visible. Thus they remained until January, 1860, nine months, when they again began to enlarge, until having almost reached their original size, I was requested to see them. The superior was now, as it had been before, the largest. They were quite hard and gave to the touch a feeling as if the finger was passing over the fetal surface of a placenta. They were tender, and the child cried with pain when they were handled. On Wednesday, last, I again saw the child. The superior cyst had suppurated and was discharging a rusty-colored pus. The child had no bodily deformity. The tumor disappeared and the patient is now (1872) a well grown boy. At the time of the report of the case, I remarked that it might be appropriately called congenital hydrocele of the neck. In M. Boucher's thesis, published in 1868, I find that Wernher had given the name of "congenital hygroma of the neck" to these cysts, not making the division of simple and composite. Under the title *Cou* in the *Dictionnaire de Médecine*, M. Maunoir gives cases of hydrocele of the neck, but makes no mention of congenital cysts. At the time of this case, I was unable to find any allusion to cysts of the neck in new-born children. *The London Lancet* of Dec. 10th, 1859, contained the following paragraph:—

"*Injection of Congenital Cysts of the Neck with Iodine.*—At the last meeting of

the Société de Chirurgie, M. Boinet related the particulars of the success of M. Roux, of Toulon, in treating multilocular cysts of the neck by puncture and injections of iodine. The patients were newly-born children, and the success highly encouraging." I then added, "Since, however, children may readily attain the age of three or four years without suffering, there are many reasons for postponing the operation. If the tumor gives inconvenience, occasional capillary punctures will give relief."

This seems to be the opinion of M. Boucher, both for simple and composite cysts, that any operation is inadvisable.

My case conflicts with the diagnosis of M. Boucher in several particulars. 1st. Simple congenital cysts may appear in the posterior region of the neck. 2d. They may exceed the boundaries given by M. Boucher, and appear in the axilla. 3d. Contrary to the proposition of M. Boucher and Herr Wernher, a posterior cyst may be found in a child born at term and presenting no deformity of body. Lastly, the result shows the good effects of an expectant mode of treatment.

ABSORPTION OF RETAINED PLACENTA.

By A. D. ROBINSON, M.D., Island Pond, Vt.

Mrs. T., multipara, aged 37, became pregnant about the middle of October, 1871. On the first of March following I was consulted by her husband, who informed me that his wife had symptoms of threatened miscarriage. I did not see the case, but the usual advice and remedies touching cases of like character were prescribed. Four weeks subsequently I was summoned to visit Mrs. T.; found her suffering from quite a profuse uterine hæmorrhage, attended with considerable gastric disturbance and vomiting, but no uterine pain.

My suspicions having partially framed a diagnosis in advance, I was not a little surprised to receive the following history from both the lady and her husband. I was informed that on the evening following the day on which Mr. T. called on me for the prescription for his wife, soon after retiring to bed, she was delivered of a four months' fetus, with—to use her own language—very little pain or inconvenience, but that no afterbirth followed the discharge of the fetus. Mrs. T. also informed me that her confinement to the bed was comparatively brief from the moment of her miscarriage, and that she had enjoyed a good degree of health, so that she had attended

to her own household duties up to the time of her attack four weeks subsequently.

Suspecting that the undischarged placenta might have been thrown off through decomposition, in a fluid form, questions bearing on such a result were asked, but with positive assurance that *less* discharge existed than at a birth of full term, and attended with no unusual amount of fœtor.

On examination of the uterus, I found a shortened neck and unnaturally large fundus, furnishing almost indubitable evidence of its having recently contained a fetus, and that it still held within its walls some foreign body, which I had good reason to believe was a placenta, or some portion of one. But, suffice it to say, our patient was relieved of the vomiting by a laxative enema, which brought away a considerable quantity of hardened fecal matter; and of the uterine hæmorrhage by opiates and rest.

From this hour Mrs. T. gradually recovered; and, if we may accept her evidence to verify the fact, no placenta has been thrown off, either entire or in part, and she still continues in the enjoyment—so far as I know—of perfect health. I may add still further with propriety, that she is a person of unusual intelligence and reliability, and in every respect irreproachable character, which goes very far to strengthen her observation of the case.

I have thus furnished to the profession a brief history of one of those freaks in obstetric practice which would seem quite incredible were it not that cases of similar import have been long since met with. As the question of absorption of a retained placenta is still *sub judice*, an accumulation of evidence may still be necessary to clear up this among other anomalous cases of obstetric surgery.

September 20, 1872.

In the treatment of erysipelas, Professor Broca recommends the application of collodion upon the skin above the part attacked. The layer of collodion, which is to be on sound skin, should be from six to eight centimetres wide, and forming a complete circle, separating the healthy skin from that attacked. A slight circular compression is thus produced, and it is rare for the disease to cross this barrier, behind which it speedily fades. The part should be examined once or twice a day, in order at once to repair any fissures, and the collodion should be quite pure, without any oil, which is sometimes added to it.

Progress in Medicine.

REPORT ON OPHTHALMOLOGY.

By O. F. WADSWORTH, M.D.

DEVELOPMENT.

SERNOFF (*Centralt. f. d. Med. Wiss.*, 13, 1872) makes an important contribution to our knowledge of the development of the eye. In the embryo of the hen, on the second day of development, when the outer germinal layer begins to fold in to form the lens, a layer of the middle germinal layer (connective tissue) lies between it and the ocular vesicle, and is pushed into the hollow of the secondary ocular vesicle before the lens. As the lens is cut off from the outer layer, this connective tissue layer closes around it and forms a "temporary lens capsule." It is not yet (on the third day) structureless, but faintly fibrillar and encloses nuclei. From the posterior half of the temporary capsule are formed, later, the vitreous; the posterior half of the lens capsule (at first containing nuclei and afterward becoming structureless); the zonula Zinnii. The anterior half of the temporary capsule splits into two layers, which form the cornea and anterior lens capsule. The iris grows forth from the periphery of this split and is at first attached to the lens capsule at its papillary edge, later becomes free. The pigment layer of the iris arises from the anterior edge of the ocular vesicle, which presses forward against it, and has therefore the same genetic character as the pigment layer of the retina. In mammals, which have a papillary membrane, the process of development of the capsule is probably the same, the vascular papillary membrane representing the lens capsule and becoming structureless.

ANATOMY.

The Lymph-vessel System and the Nerves of the Cornea.—Lavdowski (*Arch. f. Mikros. Anat.*, Bd. viii. Hft. 4).—The author injected the corneas of various animals and of man, and treated them by different reagents, of which chloride of gold proved the most satisfactory. He considers that there exist in the cornea a series of anastomosing canals, which possess a separate wall of their own, distinct from the corneal substance proper. At the points of anastomosis the canals widen so as to form a cavity of considerable size, and here cells, consisting of a moderate amount of protoplasm and enclosing a large nucleus, are

situated. These cells are attached to the wall of the canal only on one side, while the protoplasm in other directions floats freely in the fluid which the canals contain. As regards the manner of attachment of the cells, he agrees with Schweigger-Seidel, but the views of the latter as to their composition, that they are simply delicate, transparent plates containing nuclei, having the same characteristics as endothelium elsewhere, he distinctly rejects. Beside the canals already described, the injected preparations showed also a series of tubes in direct connection with them, but of different form and mutual relation. These, which other observers have also seen, but have considered artificial productions due to the injected fluid entering the stems of the nerves, he refers to the peri-neural lymph-vessels.

The nerves of the cornea he brings into intimate relations with the canals and corpuscles. The finer branches often enter and run along for some distance within the canals, passing through the substance of corneal corpuscles in their course, and again emerge, to divide and finally terminate in the walls of the canals, or the nuclei or nucleoli of the corpuscles. His figures show axis-cylinders entering the corpuscles, and clearly to be followed to the nucleolus. The latter method of termination has been described also by Lipmann (*Virch. Arch.*, Bd. 48), but a comparison of the text and drawings of the two investigators gives the impression that the terminal fibres of Lavdowski are coarser. "Thick axis-cylinders, which on the one side enter the chain of canals, coalesce with the gradually diminishing ends of the latter, and, separating into their primitive fibres, reach the inside of the canal, while their opposite ends, here not separated into their individual fibres, spread out into rhombic plates of irregular form closely attached to the wall of the canal, and sometimes containing nuclei," are also described and figured. This appearance was only observed in the cornea of the dog. The free ending of fibres with terminal enlargements in the corneal tissue is denied. In the epithelium, nerve fibres were only followed to the external layer of cells, but though he has never seen them, he is a firm believer in the existence of the free terminal swellings above the epithelium observed by Cohnheim. In an appendix it is stated that the termination of nerve fibres in the nucleoli of the corpuscles has been confirmed by tearing the preparations and isolating the elements.

Lymph-Spaces.—The distribution of lymph-spaces in the eye, as well as in other parts of the body, has been the subject of much investigation in the last few years, and the pathological importance which some of the discoveries in this direction have attained must be an excuse for not confining the account of them strictly to the present year. Schwalbe (*Arch. f. mikros. Anat.*, 1870) described several lymph-spaces in the eye and its adnexes. The *anterior space* comprises the aqueous chamber, both before and behind the iris, the so-called canal of Petit, and the cavities of the meshwork behind the ligamentum pectinatum. It empties not into other lymph-vessels, but through the canal of Schlemm into the anterior ciliary veins. The *sub-vaginal space* is situated between the outer and inner sheath of the optic nerve, and extends from the point of union of the sheaths with the sclerotic to the optic foramen, where it is in communication with the arachnoid cavity. It is traversed by a meshwork of elastic fibres and clothed with endothelium. The *supra-vaginal space*, also in connection with the arachnoid cavity, extends from the optic foramen to the posterior border of Tenon's capsule, lying between the outer sheath of the nerve and a fibrous fascia which surrounds the sheath and joins the capsule of Tenon. At this point, it communicates with the cavity between Tenon's capsule and the sclera. Where the venæ vorticosæ perforate the sclera they are accompanied by perivascular lymph-canals, by means of which Tenon's space connects with a narrow fissure, extending around the eye between sclera and choroid from the entrance of the optic nerve to the ora serrata, the *peri-choroidal space*. The opposite surfaces of this space are united by numerous elastic fibres, and less numerous fibres stretch between the surfaces of the supra-vaginal and Tenon's spaces. All are lined with endothelium.

Schwalbe found that a solution of Berlin blue injected under a moderate, steady pressure into the arachnoid cavity, penetrated through the optic foramen into the supra-vaginal spaces, and from the latter into Tenon's space and the peri-choroidal space. By injecting the peri-choroidal space he was able to observe the exit of the fluid through the sclera by the side of the venæ vorticosæ, and sections showed clearly the anatomical relations here existing. No communication between the sub- and supra-vaginal spaces appeared to exist. These discoveries have led to similar investigations by others, and have served as the

basis for various hypotheses as to the production of different pathological changes in the eye, some of which will be referred to later. Schmidt (*Graefe's Arch.* xv.) repeated the injection experiments of Schwalbe; succeeded in filling the sub-vaginal space, but did not obtain a complete filling of Tenon's space, nor demonstrate its connection with the peri-choroidal space. He did obtain, however, an injection of the lamina cribrosa in the form of a fine network, starting from the anterior extremity of the sub-vaginal space, and stretching across the nerve at its entrance to the eye. The fluid extended a short distance backward between the bundles of nerve fibres, but not forward into the retina. He, therefore, concludes that there is a network of lymph-vessels in the lamina cribrosa connecting with the sub-vaginal space. Manz (*Graefe's Arch.* xvi.) made injections beneath the dura mater of dead and living animals. He succeeded in injecting the sub-vaginal and, to some extent, Tenon's space, but not the peri-choroidal or the lamina cribrosa. Key and Retzius (*Nordisk. med. Arkiv* 1870, *Centralb. f. d. Med. Wiss.*, 33, 1871) injected all the spaces described by Schwalbe. They found, also, that fluid penetrated from the sub-arachnoid space into a meshwork between the inner sheath of the nerve and the nerve itself. Michel (*Graefe's Arch.* xviii.), by injections of the eyes of animals and man, corroborated and extended the discoveries of Schwalbe. He found that a system of fine fissures is present in the outer sheath of the optic nerve and in the sclera; that these can be injected by careful manipulation, and that by means of them the sub-vaginal space communicates with the supra-vaginal and peri-choroidal spaces, and the latter with Tenon's space. In the neighborhood of the junction of outer sheath and sclera the former consists of some four tolerably distinct layers, and here the fluid passes most readily through the sheath. The great individual modifications which occur, even in normal human eyes, at this point, influence the readiness of transmission. Strongly confirmatory of the view that the fissures in sclera and sheath are lymph-vessels and not artificial productions, is the presence in them of endothelial cells, these cells being the same as those so long known in the sclera under the name of connective-tissue corpuscles. It is well known that the corpuscles of the sclera bear great resemblance to the corneal corpuscles. This discovery, therefore, would support the view of Schweigger-Seidel as to the endo-

thelial nature of the latter. Injection of the lamina cribrosa Michel found only in a few instances and to slight degree.

The Pigment layer of the Retina was investigated by Morano (*Archiv. f. mi. ros. Anat.* viii.) in the frog, triton and other animals. He found the cells hexagonal and smooth on the choroidal surface; seen from the side there is first, toward the choroid, a clear layer of protoplasm, to which succeeds a much thicker pigmented portion; the inner part is made up of fine projections which lie between the rods and cones. Sometimes the inner edge of the cells, instead of dividing into many projections, narrows and again widens and forms a sort of hollow tube. In the frog, the pigment granules extend to the ends of the projections and can be followed as far as the external limitans. A nucleus, with large nucleolus, is situated at the boundary of the pigmented and non-pigmented portions of the cell, and in the frog and some other of the animals examined, but not in all, the cells contain yellow oil globules. The crenellations on the rods seen by Schultze he considers due to the projections of the epithelial cells.

Kryptophthalmus.—Zehender, in the *Monatsbl. f. Augenh.*, July and August, describes a female child, presenting among other anomalies that of a complete want of development of the eyelids, the skin stretching unbroken over the imperfectly developed globes. This is the first case which has been recorded of this anomaly without at the same time imperfect development of skull or brain, or lack of eyeballs. The brain and skull were here well developed, and, although both eyes were imperfect, there was in the right eye very evident quantitative perception of light. The child lived nine months. For the results of the careful and minute examination *post mortem* we must refer to the original article. Manz, who made the examination of the eyes, proposed the name of *kryptophthalmus* for the malformation.

PHYSIOLOGY.

Connection between Retina and Brain.—Brown-Séquard (*Archiv de Physiologie*, March, 1872) denies the correctness of the now generally accepted theory of Wollaston, according to which the fibres of each optic tract divide at the chiasma, a portion going to either eye, so that the right lateral halves of both retinæ are supplied by the right, the left halves by the left optic tract. Admitting that this theory is in perfect harmony with some cases of hemi-

opia in which there was lesion of one tract or one lateral half of the brain, he yet states that there are many facts which show its falsity. He considers that clinical and experimental facts lead strongly to the following conclusions: "1st. Each half of the brain suffices for vision in the two eyes, and each optic tract places the corresponding half of the brain in communication with the two halves of both retinæ; 2d. The amaurosis, in the case of lesion of one optic tract, or of the tubercula quadrigemina or other parts of one-half of the encephalon, or one side of the spinal cord, does not depend on the loss of function of the conductors of visual impressions or of a point of the centre which presides over these impressions, but rather on the influence which an irritation excited at the place of lesion exercises on the nutrition of the eye, of the optic nerve, or of other parts." The details of the facts in support of these opinions are promised later. Meantime, if Wollaston's theory be rejected, it is difficult to explain the many carefully observed cases in which, with lesion of one side of the brain, there has been complete loss of vision over the whole corresponding lateral halves of both retinæ, while the vision of the opposite lateral halves remained quite normal.

On the Influence of the Corpora Quadrigemina on the Pupil.—Knoll made a series of experiments on white rabbits (*Centralbl. f. d. Med. Wiss.*, 17, 1872) to determine whether the corpora quadrigemina take part in producing the reflex contraction of the pupil through the oculo-motorius when the optic nerve is stimulated. Since the optic tract passes as a flattened band along the inner anterior half of the corpora quadrigemina, the supposition arose that the earlier experimenters had wounded also the fibres running in it. Special attention was therefore given to this point. When the optic nerve was divided between eye and chiasma, the author saw dilatation and paralysis only of the same side, while the opposite eye was not affected. So soon, however, as the division was made between the chiasma and brain, the paralysis of the iris occurred only on the opposite side. He therefore supposes that there is a complete crossing in the chiasma of the fibres which transmit the stimulus to the oculo-motorius. The action of the oculo-motor on the iris must also be simply reflex, not at all tonic, since, after the optic has been divided, division of the oculo-motor causes no farther dilatation of the pupil.

Division of the optic thalami and corpora

quadrigemina showed that the wounding of those parts causes no change in the reaction of the iris to the stimulus of light, so long as the macroscopically visible fibres of the tractus opticus are spared. Division of these fibres produces immediate paralysis of the iris on the opposite side. Irritation of the anterior corpora quadrigemina produced dilatation of the pupils of both eyes, but was more marked on the same side. This action ceased, however, so soon as the two sympathetics in the neck were cut; and the author believes that it was due to an irritation of the oculo-spinal centre, which, according to Salkowski, extends into the medulla oblongata.

Influence of Sympathetic on Nutrition of the Eye.—Sinitzin (*Inaug. Diss.*, Moscow, 1871, *Ann. d. Ocul.*, 5 and 6, 1872) sought to determine, on rabbits, the effect of injuries of the cervical sympathetic on parts innervated by it. Having removed the superior cervical ganglion on one side, he introduced, twenty-four hours later, fine spiculæ of glass into the cornea of both eyes. Considerable inflammation followed on the side on which the nerve was intact; on the divided side it was slight, and soon disappeared. The temperature on the injured side was higher, and the fundus of the eye hyperæmic. After the removal of the ganglion had existed for a long time, the iris paled and appeared bloodless. When the injury to the cornea was done ten to twenty-seven days after removal of the cervical ganglion, the results were nearly the same on the two sides. In another set of experiments, he first excited inflammation in both corneæ, and later removed the cervical ganglion of one side. Here the effect was similar to that in the first experiment; absorption of the inflammatory products and healing took place more readily on the side on which the ganglion was wanting. Section of the trigeminus was not followed by neuro-paralytic ulceration of the cornea when the superior cervical ganglion was at the same time removed, and if the latter was only removed after the ulceration following section of the trigeminus had occurred, it still caused the ulceration to disappear, or at least not to increase. The author attributes the results thus obtained to the increased afflux of blood and higher temperature, and he convinced himself by other experiments of the truth of this view.

Accommodation in Aphakia.—Förster (*Monatsbl. f. Augenh.*, Feb. and March, 1872) endeavors to show from the investi-

gation of a number of patients operated on for cataract that, contrary to the universally received opinion, aphakial eyes may possess a considerable power of accommodation. Some of the instances which he gives are certainly rather startling in face of the views now held, and which have been supposed to be absolutely proved. F. gives the amount of accommodation found in 26 eyes (22 individuals); in 7 he reckons the accommodation as $\frac{1}{16}$ or less, 8 have an accommodative power greater than $\frac{1}{16}$, and one greater than $\frac{1}{8}$. Förster states that he found the amount of accommodation greater in the young, less in the old, which corresponds with the rule for normal eyes, and this, he says, is the chief argument in favor of his view. He found also that this power of accommodation increased for many months or years after the removal of the lens. How the accommodation is produced he does not attempt to explain.

Without farther knowledge of the cases examined than the few details given in the article, it seems as if a part at least of the apparent accommodation may have been due to the existence of only a small opening through which the rays of light could reach the retina, the greater part of the pupil being blocked by opaque capsule or false membrane. With such an opening the circles of dispersion would be reduced to a minimum, and the range of vision considerable, independently of any accommodation. The case, for instance, in which accommodation is assumed greater than $\frac{1}{8}$, was examined seven months after division of a capsular opacity which had extended across the pupil. Another case with assumed accommodation = $\frac{1}{8}$ had, four weeks previously, undergone division of capsular opacity. Later, the capsule was a second time divided, and, three weeks after the operation, the opening in the capsule being then presumably larger, the accommodation had sunk to less than $\frac{1}{16}$.

The observations of Woinow (*Protocoles de la Soc. Phys. méd. de Moscou*, 1871, *Annales d'Oculistique*, 5 and 6, 1872) may possibly have a bearing on Förster's views. Woinow found, on measuring with the ophthalmometer the curves of the corneæ of persons who had been operated on for cataract and then calculating the glass required to correct the corneal astigmatism, that the glass thus obtained did not suit, but that a cylindrical glass of different focus and with a different direction of axis was required to neutralize the astigmatism of the eye. He concludes from this that the pos-

terior pole of the eye is also the cause and seat of the astigmatism. He has also observed that, patients operated on for cataract often require for near objects a cylindrical glass of different focus and with different direction of the axis than for vision in the distance, and the change in the direction of the axis may vary 25°. Measurements with the ophthalmometer showed that no change in the curves of the cornea of such eyes occurred. Therefore, in convergence to observe near objects, he supposes that the astigmatism varies according to variations in the posterior segment of the globe of the eye.

Ophthalmoscopes.—The variety of ophthalmoscopes increases rapidly. Carter has modified Burke's fixed ophthalmoscope by substituting for one of the mirrors a convex lens and making some other slight changes which render its use more easy. Sichel (*Annales d'Oculist.*, Jan. and Feb.) describes an ophthalmoscope for two observers. A right angled prism is placed in a case behind the hole in the mirror so as to intercept one portion of the rays and direct them to the side to enter the eye of one observer, while the remaining portion of the rays pass directly backward to be received by the eye of the one who manages the instrument. Schweigger (*Berlin Klin. Wochens.*, 49, 1871) pointed out that an ophthalmoscope for two observers could be readily obtained by modifying the binocular ophthalmoscope of Girard-Teulon. The modification proposed would make the instrument identical with that constructed by Sichel.

Perimeter.—Scherk (*Monatsbl. f. Augenh.*, May, 1872) describes and figures a new perimeter. It consists of the half of a hollow sphere of 1' radius, the inner surface blackened and divided by red lines radiating from its centre. On this surface the field of vision may be marked out with chalk. It is divided into two parts along a vertical line through the centre, which may be separated for convenience of obtaining proper illumination, and it has a head rest which brings the eye to be examined at the centre of the sphere. Carter (*Monatsbl. f. Augenh.*, Sept.) has modified Förster's perimeter, so as to have a movable quadrant instead of a semi-circle, and arranged it so that the examined eye looks through a hole instead of at a dot.

Size of Field of Vision.—Dobrowolski (*Monatsbl. f. Augenh.*, May, 1872) demonstrates that besides the projection of brow and nose, the eyelids also influence the size of the field of vision. When they are

drawn out of the way the size of the field is increased.

Tonometry.—In the *Archives of Ophthalmology and Otology*, vol. ii. No. 2, appeared a long article by Pfleger on Tonometry of the Eye. The author insists upon the value of the tonometer of Dorr for detecting slight changes of tension of the eye, and determining the degree of change more accurately than can be done by palpation. He gives tables of the results of measurements (made by means of this instrument) of the tension of a large number of normal and also of diseased eyes. There is need, however, of much more extended observations before any directly practical advantage can be drawn from this method. It appears from one of the tables given that the tension of the normal eye increases constantly in proportion to the age of the individual.

CONJUNCTIVA.

The total Destruction of the Conjunctiva is advised by Streetfield (*Lancet*, June 15, 1872) in cases in which the eye has been removed and the patient is unable to wear an artificial eye, either on account of the irritation caused by it, expense, or contraction of the conjunctival sac. In such cases a troublesome conjunctivitis is often kept up by the entrance of dust through the imperfectly closed lids, or the irritation caused by turning in of the lashes upon the surface of the conjunctiva. He proposes the application to the conjunctival surface of a thin layer of chloride of zinc paste, and the destruction later of any pockets of conjunctiva that may remain by the actual cautery. The patient is thus rendered more comfortable and the cosmetic effect improved. The time required for healing, and the annoyance from the suppuration during the granulation of the cauterized surface, seem to be the chief objections to this method. The reporter has succeeded in attaining the same objects, with very little inconvenience to the patient, by removing a band of conjunctiva close to the inner edge of the lids and uniting the raw surfaces of the upper and lower lid by deep sutures. A bridge of conjunctiva is left near the inner canthus, to allow the escape of any secretion from that portion of the conjunctiva which remains.

CORNEA.

Pathology of Corneal Inflammation.—(Severin, *Beitrag z. Lehre v. d. Entzündung*, Dorpat, 1871; *Schmidt's Jahrbüch.*, 1872, No. 5; Key and Wallis, *Virchow's Arch.*, Bd. 55; Duval, *Archives de Physiologie*, 2,

1872.*—The relation of the corneal corpuscles to inflammation of the cornea has given rise to many articles and much discussion, and the question whether they proliferate and aid in the formation of pus-cells must still be regarded as unsettled. Those who insist on their active participation in inflammation admit, with scarcely an exception, and in part at least, the correctness of the views of Cohnheim. Severin studied the process of inflammation on frogs poisoned with muscarin. By this means the heart's action and the blood-current was stopped, and the exit of white blood-corpuscles much diminished, while the animal still remained alive several hours. He found that changes occurred in the corneal corpuscles, both at the edge of the cornea and near the irritated point, and concludes that they do not simply remain passive in inflammation of the cornea, as Cohnheim asserted; but he was unable to follow their behavior far on account of the death of the animals experimented on.

The article by Key and Wallis is a very valuable one and will well repay a careful perusal. They experimented on frogs, in the winter as well as the spring and summer. The former season they found much more favorable, since the inflammation was then less severe as well as slower in its course, and the successive changes which occurred could be more accurately followed. They state that the corneal-corpuscles took absolutely no part in the production of pus-cells; even when the wandering cells were crowded about them they could still by means of thin sections and immersion lenses be perceived to retain their normal appearance, and they became again plainly visible so soon as the wandering cells had become less numerous. Only when the inflammatory excitement had been very considerable, and the numbers of wandering cells which had traversed the anterior lamellæ and the neighborhood of the irritated spot very great, were the corpuscles somewhat affected in those parts. Even then, though the network formed by the processes was somewhat disturbed and irregular, and the processes occasionally pale and broken, the corpuscles themselves and their characteristic nuclei remained in place. The formation of vacuoli in the corpuscles described by Norris and Stricker was due to the direct action of nitrate of silver, which was used as an excitant.

The vacuoli occurred only when the nitrate was applied, never when the irritation was otherwise excited; and were found only in a zone around the cauterized spot, which was as large in fifteen to thirty minutes after the application of the silver as it became at any time.

Duval investigated the relations of the white blood-corpuscles to the origin of pus-cells in the cornea as well as in other parts of the body. He was unable to discover any other source for the pus-cells in the inflamed cornea than proliferation of the corneal corpuscles. The latter, he states, evidently hypertrophy and proliferate. As he was also unable to observe the exit of the white blood-corpuscles from the veins or capillaries of the frog's mesentery, than which no fact in pathology is better established, and denies positively that it occurs, perhaps his opinion should be accepted with reserve.

Bleeding for Inflammation of Cornea.—Rubaschkin (*Annal. d'Oculist.*, 5 and 6, 1872) endeavored, by means of experiments on dogs, to determine the influence of bleeding on traumatic inflammation of the cornea. He found that in the animals which were bled the swelling of the epithelium and of the substance of the cornea was increased, that suppuration and sloughing of the corneal substance was greater, and that the progress of cicatrization was delayed.

Herpes Corneæ.—Schmidt (*Monatsbl. f. Augenh.*, May, 1872) relates two cases of herpes of the cornea, of the character which Horner, at the meeting of the Ophthalmological Society at Heidelberg, in 1871, described as following catarrhal affections of the respiratory passages. He would make a distinction between these cases, as inflammatory or catarrhal, and such cases as the following, neuralgic herpes.

The patient had chronic granulations and slight pannus. One afternoon, a number of minute vesicles were observed on both corneæ. These disappeared under the application of calomel, but reappeared each afternoon at the same time, preceded by severe pain in the eyes and course of the supra-orbital nerves. There was developed tenderness to pressure over the supra-orbital notch on either side and hyperæsthesia of the skin of the forehead. The daily recurrence of pain and eruption continued, spite of quinia, arsenic, morphia injections, section of supra-orbital nerves, electricity and a great variety of other treatment, for nearly four months, when the patient withdrew from observation. The

* See, also, as regards formation of pus-cells from connective-tissue corpuscles, the article by Hoffman noticed in Report on Pathology in this JOURNAL for October 17th.

division of the supra-orbital nerves caused cessation of the supra-orbital neuralgia, but pain in the eye continued. Even an inter-current attack of diphtheritic conjunctivitis did not stop the eruption of vesicles.

Treatment of Ulcus Corneae Serpens.—Alfred Graefe (*Monatsbl. f. Augenh.*, May) suggests a modification of Saemisch's operation for ulcer corneae serpens, to which he was led in a case in which S.'s operation did not succeed, by the idea of separating the still healthy from the diseased tissue. He makes a cut not through the base of the ulcer, but in the healthy tissue just beyond the progressing infiltration, and states that in this way he has always succeeded in preserving the still unaffected part of the cornea, even in very advanced cases.

Tattooing of Cornea.—In the *Archives for Ophthalmology and Otolaryngology*, ii. 2, Wecker writes on his method of tattooing leucomata of the cornea. Although undertaken at first merely with the view of improving the appearance of the patient, he learned from experience that it is in some cases of value also as regards improvement of vision, since it prevents the dazzling caused by diffusion of the light passing into the eye through the grayish border of the leucoma. Ticehurst (*Lancet*, May 4) advises the use of several fine sewing-needles bound together in the performance of the operation. He says the result is much neater with this instrument than with the grooved needle used by Wecker. Talko (*Monatsbl. f. Augenh.*, July and August) adds his testimony to the advantages of the operation, and points out that its effect is likely to be imperfect when the leucoma contains blood-vessels, since the bleeding from these washes away the pigment employed and prevents its deposit in the cornea. The reporter has also experienced this difficulty in two cases. Levis (*Phil. Med Times*, Oct. 5) suggests that this operation might be used with advantage in albinos to prevent the entrance of rays through the peripheral portion of the cornea.

[To be continued.]

THE Elizabeth, N. J., *Journal* says that a certain undertaker there sent to one of the prominent physicians of that place a lot of death certificates with his card on them, as a complimentary present to the doctor. What the doctor sent to the undertaker as an acknowledgment of the compliment we have not heard.

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. GREENOUGH, M.D., SECRETARY.

SEPT. 9th.—*Acute Tuberculosis simulating Typhoid Fever.*—Dr. EDGES reported the case and showed the specimen.

S. L., æt. 23, laundress, entered the City Hospital July 29, stating that her general health was good, and that her present illness began eight days before, with headache and vomiting. Subsequent inquiries, however, show that this was not the beginning of her illness, since she had complained before that time of a disagreeable sensation at her stomach, and had been noticed to have a poor appetite. Had been in bed for a few days before entrance. Skin hot and dry. Pulse 108. Tongue coated and dry. No appetite. Bowels moved two days before entrance by a cathartic. Complaints of pain in top of head and temples.

July 30th.—Bromide of potassium, grs. xx. ter die; grs. xxx. at night.

31st.—Magnesia citratis, ℥i. every three hours. Omit bromide.

The headache decreased, but stupor took its place. There was no diarrhoea and no rose spots. The patient died on Aug. 12th.

The treatment was chiefly bathing and stimulants. The temperature was very irregular, rising on one day seven degrees from morning to evening, and a portion of the time subsequently being higher in the morning than at night.

The autopsy disclosed considerable serum over the convexity of the cerebrum, and the white substance was pinkish. Nothing abnormal was noticed at the base of the brain, or in the fissure of Sylvius. There was a small amount of serum in the pleura and pericardium. The lungs contained large numbers of small gray tubercles, some beneath the pleura and others at different depths; few, if any, of them larger than the head of a large pin. Many of these were surrounded by rings of congestion. There was no caseous tubercle at the apex. The condition of the bronchial glands was not noted at the time, but they were probably not enlarged. The liver and spleen each contained many tubercular masses, some nearly as large as a pea, much more caseous in appearance. The kidneys contained a few small tubercles, principally, though not exclusively,

under the capsule. The small intestines contained a large number of minute tubercles, with a few of larger size. The mesenteric glands around the head of the pancreas were enlarged and caseous, the others only slightly enlarged.

With the exception of one means of diagnosis which was not brought to bear, as the nature of the disease was not in the least suspected, namely, the investigation of the choroid by the ophthalmoscope, none of the usual means of distinction between the disease found and that supposed to exist could have conducted us to a certain diagnosis. The absence of diarrhoea and rose spots can hardly be considered conclusive against typhoid. Cough and dyspnoea were at no time prominent symptoms. The irregularity of temperature is not very unusual in typhoid, although its course in rising in the morning and falling at night, as sometimes happened, was, it must be admitted, exceptional; but the frequent bathing might be supposed to be not altogether without influence. The presence or absence of cicatrices of caseous glands in the neck was not noted.

DR. JACKSON said that he had never seen a case, where the tubercular deposit was not greater, terminate so soon. The nodules in the liver were larger than those in the lungs, and might, perhaps, have been developed at an earlier period, during some previous attack of which there was no record. Tubercular disease of the liver and spleen in adults is rare, more especially where, as seems to be the fact in this case, it is antecedent to that of the lungs. Louis states that he has never found tubercle in the other organs without the lungs also being affected.

SEPT. 9th.—*Strangulated Femoral Hernia.* DR. DWIGHT reported the case as being interesting from the fact of the strangulation being probably caused by an improper use of a truss, and also from the quickness of the recovery after operation. When seen, the patient, a woman, had been vomiting for twelve hours. Taxis not succeeding, Dr. Dwight had operated by a transverse incision. The gut looked healthy and was returned to the abdominal cavity without difficulty after the constriction had been divided. On coming out of the ether she vomited some greenish matter. On the fourth day, she had a natural defecation without cathartic or enema, and on the fifth day she was sweeping the floor.

DR. ENES said that he had always supposed that the operation for strangulated

hernia would produce a radical cure; in a case of his, however, the hernia came down after the operation, larger than before, and he had since heard it stated that such was usually the case.

DR. SHATTUCK reported the case of a patient, a young man, who had been admitted to the Massachusetts General Hospital, as a case of typhoid fever. He became very violent, and, the case being pronounced by Dr. Fisher to be one of typho-mania, he was sent to the McLean Asylum, where he died.

DR. TYLER, in answer to a question, said that typho-mania was what had been described under the name of "Bell's disease." It differed from acute mania in the fact that the patients are very weak, the delirium is constant, the tongue is coated, sordes forms on the teeth, and, in short, they have that series of symptoms which is known as typhoidal, whereas in acute mania the patients eat well and keep their strength for a long time. It is always fatal, lasting about nine or ten days, while patients suffering from acute mania usually either recover or the disease runs into the chronic form. Typho-mania is a disease *sui generis*, and not to be confounded with cases of typhoid fever, in which the delirium is a prominent symptom, as there are no abdominal lesions.

SEPT. 9th.—*Neus.* DR. SHATTUCK reported the case and showed the specimen. The patient, a young man of 23, was admitted to the Massachusetts General Hospital on Aug. 31st, with the symptoms of stoppage. He had had an inguinal hernia and wore a truss for several years. On August 26th, while at work, he had strained himself, and noticed a swelling in his groin which was red and tender, but which disappeared on the 29th. The symptoms, however (obstinate constipation, vomiting, distention and tenderness of the abdomen, &c.), did not subside with the disappearance of the tumor. When admitted to the hospital, there was distention and tenderness, especially at the lower part of the abdomen. No protrusion could be seen in the groin, and both inguinal rings seemed closed. He had hot fomentations applied to the abdomen and was kept under the influence of opiates, but he gradually sank and died early on the morning of September 3d.

Autopsy by House-pupil twelve hours after death. Rigor mortis very marked. Abdomen greatly distended and very tense. On removing the sternum the apex of the heart was found at fourth left rib. Base of right lung opposite junction of

fourth rib with its cartilage. Base of left lung opposite junction of fifth rib with cartilage. Lower border of liver at sixth rib. Coils of small intestine, chocolate in color and greatly distended, entirely concealed the stomach and large intestine. Delicate, spider-web-like adhesions between coils here and there. Somewhat increased amount of clear fluid in peritoneal cavity. One coil was firmly impacted in the true pelvis. Just over the cæcum, two coils were found adherent, on gently trying to separate which, a rupture was made and a thin, light-yellow, opaque, feculent-smelling fluid gushed out, such as was afterwards found to fill, together with gas, the whole distended portion of the small intestine. The distended portion included all the small intestine except about five feet immediately above cæcum and commenced in right iliac fossa very near the inguinal canal, which was uncovered by peritoneum, and about the size of one's little finger. Left inguinal canal normal. Small intestines below distention (the transition being abrupt), as well as colon, very small, relatively empty and normal in appearance. The distended portion was very thin, friable, and somewhat more than two inches in diameter.

Heart firmly contracted, empty, healthy. Lungs congested, otherwise normal. Liver and kidneys apparently cloudy. Spleen normal. Bladder empty.

Head not opened.

SEPT. 9th.—*Needles from the Body of a Hysterical Girl.*—Dr. JACKSON showed a photograph of 300 needles, which had been sent to him for the College Museum by Dr. Justin A. Andrews. They had been removed and discharged, from different parts of her body, from August to December, while she was at the Utica Insane Asylum. Eleven were found in her body after death.* He also showed a similar collection of needles from the Society's Cabinet presented by Dr. Fearing, of Nantucket.

PROF. NELATON.—Private advices announce that the health of this distinguished surgeon is much improved, if, indeed, the accounts of his illness were not from the first considerably exaggerated. It is to be hoped that both statements are true.—*Phil. Med. Times.*

* For a full report of this case see the Journal of Insanity for July, 1872.

Medical and Surgical Journal.

BOSTON: THURSDAY, NOVEMBER 7, 1872.

FEMALE TEACHERS IN THE PUBLIC SCHOOLS.

A FEW weeks ago, we took occasion to put down a few thoughts on the forcing system adopted in most public schools in training up the children, not in the way they should go, but into monstrosities of literary acquirement quite beyond their years; like the fruits recently brought us from across the continent, very large in the head and very fair to look upon, but without the mellow richness and value of products raised under a more temperate sun. Nervous affections and broken health for life, chorea, hysteria, nervous debility, febrile excitement or depression, and other disturbances arising from overwork are the penalties we are called on to pay for making our boys and girls book-read men and women in the next generation, without the truly desirable qualification that they shall be book-wise. If the whole profession were to join in publishing a book which should be a record of all the cases resulting from the present mal-administration of our schools for one year, we should find it a sad record indeed.

There is another class which deserves our sympathy, namely, the teachers, and especially the female teachers of our schools; a supplement might well be written with a goodly number of cases of broken health in the teachers to add to those of the taught. Such cases, we all know, are exceedingly hard to treat, not because of deficiency of medical knowledge or skill, but from the often-declared inability of the patient to carry out the directions of the physician. It is of but little use for us to prescribe rest for the over-taxed mind and body, when we are met by the declaration that to take it would cause the displeasure of a committee and the consequent loss of a situation.

Let us look at some of the duties, both ordinary and extraordinary, which the female teachers of Boston are required to

perform. The school hours in our grammar and primary schools are from 9 until 12 in the morning, and from 2 until 4 in the afternoon, and the teachers are obliged to be present, both morning and afternoon, fifteen minutes before the time for the session to begin. Some of the teachers close their labors for the forenoon at 12; there are others who do not leave their rooms till 1, being detained, in one way or another, in urging delinquents up to the mark. The hour before the afternoon session proves to be anything but a time of rest and recreation, and then follow two hours more of work before the day is over.

Were we to stop here, the teacher's duty would not be intolerable. We find, however, by reference to some of our patients, that there are various extras, some of which are compulsory and some of which, "it is hoped"—to use the words of the school committee—the teacher will *find* time and strength to accomplish. They are expected to supervise the compositions of their pupils out of school hours, and, to a conscientious woman, such a task is by no means a light one to perform, to read over the pile of manuscript, and to correct and fashion the crude thoughts of the young minds. The compositions, moreover, must present an appearance without spot or blemish; sometimes they are re-written two or three times, and each time they must come under the supervision of the teacher. Discipline which should lead to accuracy is certainly commendable; we are only speaking of the task it imposes on the teacher.

We learn that there are in the schools lessons known as dictation exercises, in which the teacher reads passages from a book and the pupil is expected to write from such dictation. These written exercises must be carefully examined by the teachers and corrected, and an appropriate mark be given.

Following the example of the higher institutions of learning, a series of monthly written examinations is held in the upper classes of the grammar schools in the branches which have been studied. These written papers must also be passed in re-

view by the teachers. We are now speaking of *extra work*; for the school hours are completely occupied by recitations and other exercises, and no moment can be forced out of them for such employment. All such duties as these, therefore, come upon the hours which should be sacred to the teacher for her necessary rest and recreation.

Within a year, the committee of our public schools have instituted drawing lessons for the teachers themselves, in what is known as free-hand, model and memory drawing, and also in geometrical drawing and perspective. The lessons are given on alternate Wednesday afternoons throughout the year. We understand that attendance at these courses is "voluntary" on the part of the teachers; they are, however, given to understand that these branches must be taught in the schools, and, if they are not competent to do it, others must be found who are.

As if the teachers were not already overpowered with work, a circular has recently been given out in which "it is hoped," again, that they will be able to attend a course of lectures at the Institute of Technology, of course out of school hours.

We here close the list of extras, to call attention to the fact that our teachers are under the same kind of stimulation as we see in many of their pupils. They have not exactly a "promotion" to look forward to, but they earnestly strive and overwork themselves, in season and out of season, to merit the approbation of the power which gives them employment. The strain upon the mental and physical systems is reciprocal in both teacher and pupil, and reacts most injuriously on each. To be an earnest and hard worker is one thing; to be harassed by being considered as falling short of one's duty, to be obliged to force a certain number of children to *go over* or learn a certain amount of arithmetic and geography, to feel obliged to force up, out of proper working hours, the deficiencies of blockheads, or to supervise the work of those even who are careful and painstaking; to carry out extra duties such as we have touched upon, and still others we

have not mentioned, all this is weary, dragging work, and, unless opportunity is given for rest, must bring the system into a condition of nervous irritation, and, following that, of disease. We wish that one excellent passage, written by a friend in reference to his own private school, might govern our committees in the care of the schools. We offer it in his own words:—

"It is essential, we believe, to the healthful growth of mind and heart, that the pupil should be as free from nervous excitements as from the coldness and indifference of indolence. Every means should be taken to make him quiet in spirit, happy and comfortable in his school relations; for so soon as a boy of moderate ability and of honest intentions begins to grow nervous and unhappy under the amount of work required of him, that work ceases to be of any profit to him.

"Therefore no effort will ever be made to excite or force a pupil beyond his natural ability; but every effort will be made to discourage personal rivalries and unwholesome emulation in the members of the school."

A CURE FOR CORNS.—Dr. Barbier, says the *Lyons Medical Journal*, reports the cure of the most refractory corns by the morning and evening application, with a brush, of a drop of a solution of the perchloride of iron. After a fortnight's continued application, without pain, a patient, who had suffered martyrdom for nearly forty years from a most painful corn on the inner side of each little toe, was entirely relieved. Pressure was no longer painful, and Dr. B. believed the cure radical. Two other similar cases were equally successful.

In the September number of the same Journal, Dr. Topinard, of Paris, adds a long experience confirmatory of the good effects of perchloride of iron in the destruction of corns.

He pares off the corns, and then applies a drop of the liquid. As it does not adhere readily, it should be repeated, and allowed to dry on the part. This requires some patience each time; and the application should be made every two days for a fortnight at least, and in some cases for a month. Even after apparent cure, it should be done from time to time, to prevent recurrence of the affection. Sometimes he pares off the corn a second time, taking care not to draw blood, which would render the application painful.

From Continental Journals.

NEURALGIA OF THE TESTICLE.—Several years have now elapsed since Dr. Lazarus, of Cuernowitz, reported a number of instances in which spermatorrhœa was accompanied by neuralgia of the testicle. Since then, he has continued to give especial attention to cases of this nature which have come under his notice in hospital and private practice. He finds that in a very limited number of cases only is the entire testicle affected by neuralgic pains; these are commonly limited to the *epididymis*, more particularly the superior portion, together with a part of the *vas deferens*. The left testicle is more frequently affected than the right. The precise pathological changes which take place in the diseased parts have not yet been satisfactorily made out. In a few instances, however, there has been noticed a moderate swelling of the organ, with slight enlargement of the bloodvessels. The predisposing causes of this affection do not differ from those of ordinary neuralgia. It may be the result of idiopathic or traumatic inflammation, of exposure to cold and dampness, or may be induced by the mechanical pressure of some adjacent tumor.

The most common cause, however, of this form of neuralgia is long-continued sexual continence, so that, as would naturally be inferred, the list of this class of sufferers is made up very largely of bachelors. At times, it appears to be a concomitant of approaching impotence, caused here by the engorgement of the bloodvessels and seminal ducts. In such cases, marked relief has been known to follow a natural evacuation of these vessels. In other instances, neuralgia of the testicle makes its appearance in the case of broken down individuals suffering from dyspepsia. Still another cause is the induration which not unfrequently remains behind after a protracted inflammation of the epididymis. In two instances, neuralgia of this organ was found to follow the injection of a strong solution of permanganate of potash and sulphate of copper in the course of a treatment of gonorrhœa. Renal calculi, during their passage along the ureter, may also lead to an attack of this form of neuralgia. In one case seen by Dr. L. the affection was caused by a fall from a lofty scaffolding, by which the lumbar portion of the spinal column received severe injury, resulting in paralysis of the lower extremities and eventual death. Finally, neuralgia of the

testicle is not unfrequently an accompaniment of varicocele. The affair generally begins with a sensation of pain in the upper portion of the epididymis, which, continuing without remission, would point to commencing inflammation of that organ, were it not for the absence of the ordinary signs of inflammation, such as redness and swelling. All doubt as to the real nature of the trouble is very soon removed, however, by the change in the severity of the pain, which now comes on in paroxysms of a burning, boring character, accompanied at times by nausea and vomiting. This pain is renewed and aggravated by motion, or whenever any pressure is applied to the scrotum. Cold applications afford no relief whatever to the sufferer; heat, on the other hand, serves to alleviate the pain, particularly when applied in the form of warm baths. This fact will explain why the patient finds himself more comfortable in heated apartments, such as the ball-room or theatre; and also why the paroxysms are less severe in summer than in winter.

Among the agents recommended for the relief of this form of neuralgia, Dr. L. speaks (*Wiener Med. Presse*, July 28, 1872) most highly of sulphate of zinc, given as follows:—

R. Zinci sulphatis, gran. tria;
Aque destillatæ, unc. quinque;
Aque laurocerasi, drach. unam;
Syrup. cort. aurantium, unc. semis.

M. Dose.—Tablespoonful three times daily.

He also advises the daily injection into the posterior wall of the scrotum of a small quantity of the solution of sulphate of zinc, having the strength of one-half grain to the ounce. In obstinate cases it may be necessary to resort to castration.

THE RELATION OF OBESITY TO DISEASES OF THE SEXUAL ORGANS IN WOMEN.—Dr. H. Kirsch, of Prague (*Centrabl. f. d. Med. Wis.*, No. 34), advances the idea that diseases of the sexual organs in women are not unfrequently dependent upon the presence of an abnormal amount of adipose tissue. Of 215 fleshy women whom he examined, 208 were found to suffer from some irregularity in the menstrual function. Of these 208, 116 complained of scanty menstruation (*menstruatio pauca*), 146 of leucorrhœa, 56 of chronic metritis. Anteversion and ante-flexion of the womb in 39 of these cases, retroflexion in 11; 48 were sterile, and 47 suffered from hysteria.

Dr. Kirsch maintains that the majority of these various affections tend to improve without further treatment, when once the obesity has been made to disappear. To attain this result, he recommends the adoption of a course of diet somewhat like that suggested by Banting, combined with a moderate use of the waters of Carlsbad and Marienbad.

NUTRITIVE ENEMATA.—It has been maintained by the physiologists Steinhauser and Béclard (*Gazette Hebdomadaire*, Aug. 23d, 1872) that the capability of digestion of the large intestine, which in its normal state is exceedingly small, may become more active when the juices of the small intestine, not being employed in the process of digestion, flows into the cæcum. M. Leube suggests that this discovery should be utilized for the benefit of invalids, and he therefore alleges the possibility of supporting life by throwing into the large intestine certain digestible substances mixed with a digesting agent. The latter consists of the pancreas of swine.

The enema which he suggests is a hash consisting of 50 to 100 grammes of the pancreas of a cow, freed from all fat, and 150 to 300 grammes of beef. These two substances are pounded up in a mortar, and suspended in a sufficient quantity of warm water. The injection of this compound, it is asserted, is never followed by diarrhœa. On the contrary, it is generally retained in the intestine for a period varying from twelve to thirty-six hours. For the digestion of albuminous substances it is thought that pepsine might be more efficacious.

OAKUM DRESSINGS FOR WOUNDS.—Oakum has long been employed in American hospitals as a dressing for wounds, more especially such as are attended with copious suppuration. Latterly, it has found its way into one of the hospitals of Königsberg, where, for the time being, its use has superseded that of all other dressings, and with satisfactory results. It is recommended by Dr. Heiberg, not as a disinfectant, but as possessing two important advantages over other applications.

1st. The oakum may remain for a long time undisturbed. In some cases it has not been touched for eight days after the first application. 2d. There is a marked diminution in the amount of pus secreted when oakum is used as a dressing.

Medical Miscellany.

DR. BUTLER, Superintendent of the Asylum for the Insane at Hartford, Conn., has resigned his office, which he had held for thirty years.

THE first number of the *Chicago Medical Register and Directory* has been published by a book firm of that city, under the supervision of Drs. Freer, Davis, Byford and others. In the cities where similar works have existed for some years, they are considered not only useful, but indispensable in the office of every active physician.

THE Superintendent of the Library attached to the Surgeon General's Office at Washington desires it to be understood that the collection is not intended for medical officers of the army alone, but is freely open to the profession at large for study and for reference. It will serve as a permanent repository for the literary works of medical men, where they can be consulted at any time.

A SIMPLE METHOD OF TREATING CHRONIC DIARRHŒA.—A non-professional friend calls our attention to the case of a young lady, 21 years of age, in rather delicate health, of frail constitution, and whose mother some years since died in consumption. For two years, she has been comparatively an invalid, the result, in a great measure, of chronic diarrhœa. During that time she has been under the care of several physicians and has taken a variety of medicines, but all without effect. For two months she has been employing a very simple remedy with great relief, viz.: One tablespoonful of arrowroot made into a rather thin gruel with milk, and a table-spoonful of brandy added (or taken separately) morning and evening. Under this treatment she began to improve immediately and so continued. Her health has returned, and with it color and physical vivacity.

A DAILY newspaper has the following: A pertinent inquiry—What has been gained by the exaggerated and false stories published concerning the smallpox hospital in Albany street?

We answer—nothing. Nor will anything be gained by the sensational manner of the city officials about the present epidemic. We want a *real* Board of Health.

EYE CLINIC.—A Greek merchant of Bukharest, whose sister had been cured of a cataract by Dr. Kugel, a pupil of Graefe, has established a handsome hospital for diseases of the eye in that city, with an income of 40,000 francs.

THE College of Physicians and Surgeons of Syracuse University opened on Oct. 3d, with a full corps of eighteen professors.

THE corner-stone of the Buffalo Insane Asylum was laid September 18th, with appropriate ceremonies.

HONORS TO ROKITSANSKY.—Privy Councilor Prof. Rokitsansky has just received from the Emperor Don Pedro the cross of Commander of the Brazilian Order of Roses.

BOOKS RECEIVED.—On the Treatment of Diseases of the Skin: with an Analysis of 11,000 Consecutive Cases. By Dr. McCall Anderson, Professor of Practice of Medicine in Anderson's University, Glasgow, &c. London: Macmillan & Co. 1872. Pp. 180. (From James Campbell.)

FAMPHLETS RECEIVED.—Respiratory Marmors. By James B. Leaning, M.D., one of the Visiting Physicians to St. Luke's Hospital, New York. New York: D. Appleton & Co. 1872. Pp. 19.—Twenty-ninth Annual Report of the Managers of the New York State Lunatic Asylum, for the year 1871. Albany: 1872. Pp. 87.—Organization and Constitution of the American Public Health Association. New York: 1872. Pp. 15.—Modern Medicine: A Lecture delivered Oct. 7, 1872. Introductory to the Course at Jefferson Medical College. By J. M. DaCosta, M.D., Professor of the Principles and Practice of Medicine. Philadelphia: J. B. Lippincott & Co. Pp. 38.—Report on the Structure of the White Blood-Corpuscle. By J. G. Richardson, M.D., Lecturer on Pathological Anatomy in the University of Pennsylvania, &c. Philadelphia. 1872. Pp. 22.

MARRIED.—In Hamburg, Ger., Sept. 24th, W. W. Loring, M.D., of Boston, to Miss Sara A. Unken, of H.—In Vienna, Austria, Sept. 26th, W. H. Simmons, M.D., of Concord, Mass., to Miss Anna Schneider, of Vienna.

DIED.—In Boston, Oct. 25th, Samuel Gregg, M.D.—In Glastenbury, Conn., Oct. 29th, Josiah Kiltredge, M.D., of Nashua, N. H., 79.

Deaths in seventeen Cities and Towns of Massachusetts, for the week ending Oct. 26, 1872.

Cities and Towns.	No. of Deaths.	Taunton	6
Boston	131	Newburyport	6
Charlestown	24	Somerville	6
Worcester	17	Haverhill	8
Lowell	15	Holyoke	8
Milford	5		279
Chelsea	5		
Cambridge	9		
Salem	10		
Lawrence	6		
Lynn	14		
Gloucester	4		
Fitchburg	3		

Prevalent Diseases.

Consumption	51
Typhoid Fever	23
Pneumonia	33
Scarlet Fever	8
Croup and Diphtheria	8

Thirty deaths from smallpox are reported; twenty-seven in Boston and three in Charlestown.

GEORGE DERBY, M.D.,

Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, November 2d, 133. Males, 67; females, 66. Accident, 4—abscess, 2—bronchitis, 5—inflammation of the brain, 1—congestion of the brain, 3—disease of the brain, 3—cancer, 1—cerebro-spinal meningitis, 1—cholera infantum, 3—consumption, 22—convulsions, 1—croup, 3—debility, 5—diarrhœa, 2—dropsy, 1—dropsy of brain, 2—drowned, 2—dysentery, 1—epilepsy, 1—scarlet fever, 7—typhoid fever, 6—gastritis, 1—disease of the heart, 7—hemorrhage, 1—homicide, 1—imperforate rectum, 1—intemperance, 2—disease of the kidneys, 2—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 7—marasmus, 8—old age, 3—paralysis, 1—premature birth, 1—peritonitis, 1—scrofula, 1—smallpox, 16—whooping cough, 1—unknown, 1.

Under 5 years of age, 51—between 5 and 20 years, 17—between 20 and 40 years, 33—between 40 and 60 years, 17—above 60 years, 15. Born in the United States, 86—Ireland, 29—other places, 18.